AMENDMENTS TO THE SPECIFICATION:

Please delete the paragraph on page 7, lines 3-5, and replace it with the following paragraph:

Figure 1 represents a mass spectrum of the monophosphorylated peptide, 353-$S_{(p)}$VTPPEEQQEAEEPK-367 (SEQ ID NO: 8). The abscissa axis corresponds to the ratio m/z and the ordinate axis corresponds to the percentage of relative abundance.

Please delete the paragraph on page 7, lines 22-27, and replace it with the following paragraph:

The HeLa cells of Figures 3c and 3d were put in competition with the phosphorylated peptide which served for the immunization (SEQ ID NO: 2); the HeLa cells of Figures 3e and 3f were put in competition with the non-phosphorylated peptide (QNKRRRSVTPPEEQ, SEQ ID NO: 9); and the HeLa cells of Figures 3g and 3h were put in competition with a phosphorylated peptide with no relation to the serine 353 (MEVEELS$_{(p)}$PLALGR, SEQ ID NO: 10).

Please delete the paragraph on page 8, lines 5-10, and replace it with the following paragraph:

The CDC25B3 recombinant protein is phosphorylated *in vitro* by the recombinant Aurora A kinase. The product of the phosphorylation reaction was analyzed by mass spectrometry after excision of the electrophoresis gel and triptych digestion. The MS/MS spectrum of the monophosphorylated peptide, 353-SVTPPEEQQEAEEPK-367 (SEQ ID NO: 11) is shown in Figure 1. Its analysis indicates that it is the serine 353 which is phosphorylated by the kinase.

Please delete the paragraph on page 8, lines 17-24, and replace it with the following paragraph:

The peptide of sequence QNKRRRS$_{(p)}$VTPPEEQ (SEQ ID NO: 2) was used for the immunization of rabbits. After sacrificing the animals, the serum was purified by chromatography in two steps: the first on a phosphorylated peptide column in order to retain the specific antibodies, then the second on a column of the same non-phosphorylated peptide of sequence QNKRRRSVTPPEEQ (SEQ ID NO: 9), so as to purify, in the eluate, the specific antibodies of the phosphorylated form. The recognition of the phosphorylated peptide by the antibodies was validated in an ELISA test. In the remainder of the document, these antibodies are designated by the name SE96.

Please delete the paragraph on page 9, lines 3-12, and replace it with the following paragraph:

HeLa cells were fixed and used to carry out an immunofluorescence analysis with the SE96 antibodies. The cells were also stained with 4'-6 diamino-2-phenylindole (DAPI) in order to locate the nucleus. The images shown in Figure 3 are representative of observations of a large number of cells. They show that the CDC25B protein phosphorylated on the serine 353 is located at the level of the centrosomes of the cells undergoing mitosis. This labelling is abolished when there is competition with the phosphorylated peptide which served for the immunization (SEQ ID NO: 2), but not with the non-phosphorylated peptide (QNKRRRSVTPPEEQ, SEQ ID NO: 9) or with a phosphorylated peptide with no relation to the serine 353 (MEVEELS$_{(p)}$PLALGR, SEQ ID NO:

10). These observations validate the use of this reagent in immunofluorescence.